

RECEIVED  
CENTRAL FAX CENTER

JAN 29 2008

10/700,305

**FULL LISTING OF THE CURRENT PENDING CLAIMS** **DRAFT**

1. **(Currently amended)** A method for identifying diet-regulated disease-associated polynucleotides comprising the steps of:
  - (i) selecting at least two different inbred ~~rodent known mammalian~~ genotypes (A and B) all of the same generation and all either male or virgin female, one of these genotypes (A) being susceptible to a disease, and the other genotype (B) not susceptible to the same disease;
  - (ii) dividing each genotype into two groups (A1 and A2 and B1 and B2);
  - (iii) for each genotype, each group is fed a different diet (A1 is fed diet No.1 and A2 is fed diet No.2, and similarly for B1 and B2);
  - (iv) measuring gene expression and comparing expression across the strains that differ in either genotype or in diet, but not in both;
  - (v) analyzing the expression data so as to identify diet-regulated disease-associated genes in the disease susceptible strain wherein a gene that shows at least a two-fold increase or decrease in gene expression is considered to be a diet-regulated disease-associated gene.
2. **(Original)** The method of claim 1 further comprising comparing the diet-regulated disease-associated genes so identified with an independently-derived set of diet-regulated and/or disease associated QTLs.
3. **(Currently amended)** The method of claim 1 wherein the disease is selected from the group consisting of diabetes, Alzheimer's disease, diabetes, cardiovascular disease, and cancer a ~~diet-associated disease.~~
4. **(Original)** The method of claim 2 wherein gene expression is compared by comparing mRNA abundance.
5. **(Withdrawn)** A method for determining the susceptibility of an individual to a disease, wherein said disease involves a diet-regulated disease-associated polynucleotide, the method comprising: screening an individual for the presence and/or expression of a plurality of

10/700,305

polynucleotides identified by the method of claim 1, wherein the pattern of expression of said plurality of polynucleotides corresponds with the susceptibility of an individual to a certain disease.

A diagonal stamp with the word "DRAFT" in bold, uppercase letters, next to a small icon of a document with lines representing text.

6. (Withdrawn) A method for monitoring the progression of a disease in a subject, the method comprising: at a first date, screening an individual for the presence and/or expression of a plurality of polynucleotides identified by the method of claim 1; at a second date re-screening the individual for the expression of the same plurality of polynucleotides, wherein a change in polynucleotide expression corresponds to the desirable or undesirable progression of a disease.

7. (Withdrawn) A method for treating a subject so as to reduce the risk of the individual developing a diet-associated disease, the method comprising: screening an individual for the presence and/or expression of a plurality of polynucleotides identified by the method of claim 1, wherein the pattern of expression of said plurality of polynucleotides corresponds with the susceptibility of an individual to a certain disease; and altering the expression of one or more diet-regulated disease-associated polynucleotides to reduce the risk of the subject developing the disease.

8. (Withdrawn) A method for treating a subject so as to reduce the risk of the individual developing a diet-associated disease, the method comprising: screening an individual for the presence and/or expression of a plurality of polynucleotides identified by the method of claim 1, wherein the pattern of expression of said plurality of polynucleotides corresponds with the susceptibility of an individual to a certain disease, and altering the diet of the individual so as to reduce the risk of the subject developing the disease.

9. (Withdrawn) A method for treating a subject so as to ameliorate a diet-associated disease, the method comprising: screening an individual for the presence and/or expression of a plurality of polynucleotides identified by the method of claim 1, wherein the pattern of expression of said plurality of polynucleotides corresponds with the susceptibility of an